



The Montana Comprehensive
Assessment System

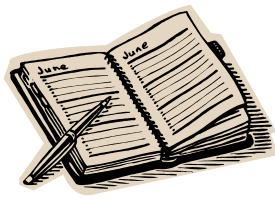
MontCAS, Phase 2

Science Field Test

Test Administrator's Manual

Grades 4, 8, and 10

Spring 2007



Important Dates

March 5 through 28: CRT test administration window

**Please return all test materials to your School Test Coordinator
on or before Thursday, March 29!**



TEST SECURITY

All test items and responses to those items in the Montana Comprehensive Assessment System, Phase 2 Criterion-Referenced Test are secure material and may not be copied or duplicated in any way or retained in the school after testing is completed.

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Checklist for Test Administrators

Before testing:

- ___ Read all directions for test administration in this manual.
- ___ Meet with your School Test Coordinator to plan science testing schedules, review procedures, and discuss any questions you have.
- ___ Check your test materials to be sure you have enough for the students you will be testing. Notify your School Test Coordinator if you are missing any materials or have defective materials.
- ___ Notify students of the testing and request that they have #2 pencils for every test session.
- ___ Help your School Test Coordinator notify students and parents about the testing program.
- ___ Secure #2 pencils and scratch paper.

During testing:

- ___ Maintain test security.
- ___ Post a “Testing” sign on your classroom door.
- ___ Write your name and school name on the chalkboard.
- ___ Be sure that all students have a comfortable and adequate workspace.
- ___ Monitor students’ handling of test booklets and response sheets to keep them in good condition.
- ___ Give students as much time as needed (within the guidelines) to complete the test sessions.

After testing:

- ___ Verify that a Student Response Sheet was completed for each student in your class.
- ___ Place the used Student Response Sheets (answer documents) in the large white envelope labeled “For Return of Used Answer Documents.” **Do not seal this envelope.**
- ___ Return all test booklets, the large white envelope containing used Student Response Sheets and all other secure test materials to your School Test Coordinator on or before Thursday, March 29, 2007.

Structure and Format of the Science Test

The MontCAS, Phase 2 Science Field Test is a comprehensive assessment, covering a broad range of objectives in grades 4, 8, and 10.

The Science Field Test is composed of one test with two test sessions. Students will record answers in a Student Response Booklet. Students may underline words and/or use a highlighter in their test booklets. Scrap paper may be provided to students to assist them during test administration. All scrap paper must be shredded after each test session.

The Science Field Test includes the following kinds of items:

- multiple-choice items, which require students to select the correct answer from four possible responses;
- constructed-response items, which require students to write a brief (half-page) response or show the solution to a problem. These items take approximately 8-10 minutes to answer.

Universal Test Design

The Criterion-Referenced Test (CRT) was developed and designed using the principles and concepts of “universal test design.” Universal test design ensures access to tests for all students by ensuring that test items assess the knowledge and skills in the most simple and straightforward manner possible and the test format presents the items in the most uncomplicated way possible. The CRT is an untimed test, although there are suggested times and guidelines.

Test Security

Test coordinators and administrators are prohibited from disclosing the contents of the CRT assessments including this field test. Under no circumstances should test booklets or marked Student Response Booklets be circulated among faculty, administrators or other persons. Each test administrator must read and sign a *Nondisclosure Agreement* before test materials are distributed. School Test Coordinators should make the appropriate number of copies of the *Nondisclosure Agreement* forms and distribute the form during the pre-administration training session. The forms must be signed and placed on file with the school principal before materials are distributed for testing and before testing begins. In addition, a *Principal’s Nondisclosure Agreement and Test Administration Agreement* is being sent to each System Test Coordinator to distribute to the principals. This form includes two agreements, both of which must be signed. The form has a barcode label on it identifying the school. This form is to be returned to Measured Progress using the “Special Handling Envelope.”

Any concern about breaches in test security or noncompliance with test administration procedures must be reported immediately to the principal, System Test Coordinator, and State

Assessment Director. All System Test Coordinators will receive *OPI Guidelines and Procedures for Test Security*. This OPI publication outlines reporting procedures and should be made available to system superintendents, principals, and test administrators.

Students to be Tested

Science assessment field tests were added in 2007 for grades 4, 8 and 10. Although the science assessment is a field test in 2007, it is required for all Montana students enrolled in an accredited public or private school in grades 4, 8 and 10; however, students with significant disabilities, LEP students with beginning or novice skills in English and/or first year in the United States LEP students, students requiring a nonstandard accommodations, and students requiring a Braille or large print test form are exempt from the science field test only! Residential treatment facilities and private non-accredited schools may participate in the science field test (optional).

Options for Participation

Without Accommodations	With Standard Accommodations
<ul style="list-style-type: none"> • For students who do not require accommodations of any kind • Group setting • Untimed with guidelines 	<ul style="list-style-type: none"> • Available for any student (student with disabilities <u>as well</u> as student without disabilities) when an accommodation is necessary to allow the student to demonstrate his/her skills and competencies. The accommodation(s) must be consistent with those used during the student's regular classroom instruction and assessment 2-3 months prior to testing. • Does not change intent/content of the test

Science Field Test Accommodations

2007 OPI Guidelines for Accommodations is provided to each system and school with an accompanying CD (PowerPoint). Both the Guidelines and PowerPoint are online <http://www.opi.mt.gov/Assessment/Phase2.html#Accom>. Accommodations will not be coded on the Student Response Booklet for the science field test!

STANDARD ACCOMMODATIONS

Standard accommodations are available to all students on the basis of individual need regardless of disability status. Decisions regarding standard accommodations should be made informally by the student's educational team on an individual basis, consistent with either previous accommodation decisions for the student or current educational needs. Making accommodations decisions on a group basis rather than on an individual basis is not permitted. Any accommodation(s) must be consistent with those used during the student's regular classroom instruction and assessment 2-3 months prior to testing.

Standard CRT Accommodations

Scheduling Accommodations
1. Change in Administration Time: Test is administered at a time of day or a day of the week based on student needs.
2. Session Duration: Test is administered in appropriate blocks of time for individual student needs, followed by rest breaks.
*3. Extended Time: Time is extended beyond the regular test administration allotments until, in the administrator's judgment, the student could no longer sustain the activity.
Setting Accommodations
*4. Individual Administration: Test was administered in a one to one situation.
*5. Small Group Administration: Test was administered to a small group of students.
6. Reduce Distractors: Student is seated at a carrel or other physical arrangement that reduces visual distraction.
*7. Alternative Setting: Test is administered to the student in a different setting.
*8. Change in Personnel: Test is administered by other personnel known to the student (e.g., LEP, Title I, special education teacher).
9. Home Setting: Test is administered to the student by school personnel in their home.
*10. Front Row Seating: A student is seated in front of the classroom when taking the test.

11. Teacher Presence: A teacher faces the student during test administration.
Equipment Accommodations
12. Magnification: Student used equipment to magnify test materials.
13. Noise Buffers: Student wears equipment to reduce environmental noises.
14. Template: Student uses a template.
15. Amplification: Student uses amplification equipment (e.g., hearing aid or auditory trainer) while taking test.
16. Writing Tools: Student uses a typewriter or word processor (without activating spellchecker).
17. Voice Activation: Student speaks response into computer equipped with voice activation software.
*18. Bilingual Dictionary: Student uses a bilingual dictionary (Note: Bilingual dictionary could include a simplified English dictionary or glossary, subject area vocabulary list).
Recording Accommodations
19. Dictation: The student dictates answers to a test administrator who records them in the Test Booklet.
20. Writing Tools: The student marks or writes answers with the assistance of a technology device or special equipment. The students' answers are transferred by the test administrator to the Test Booklet.
21. Assistive Technology: Another form of assistive technology routinely used by the student (that does not change the intent or content of the test) was used by the student.
Modality Accommodations
22. Oral Presentation: Tests were read to the student by the test administrator (with the exception of reading passages). Note: Readers must read test items/questions to the student word-for-word exactly as written. Readers may not clarify, elaborate, or provide assistance to the student regarding the meaning of words, intent of test questions, or responses to test items/questions.
*23. Test Interpretation: Tests, including directions, were interpreted for students who are deaf or hearing-impaired (with the exception of interpreting the reading test).
*24. Test Directions with Verification: An administrator gave test directions with verification (by using a highlighter) that the student understood them.
*25. Test Directions Support: An administrator assisted students in understanding test directions, including giving directions in native language.
26. Not Available

27. Braille: A Braille version of the test was used by the student.
28. Large Print: A large print version of the test was used by the student.
29. Other: With verification from OPI in advance of the testing window, some other approved accommodation was used by a student.

* Accommodation suggested as appropriate for Limited English Proficient (LEP) students

Recommended Testing Schedule

Although testing times are suggested as a minimum guideline, please remember that the CRT assessments are not timed. These tests are performance assessments; therefore, time limits should not be strictly enforced. Students should be allowed to continue as long as they are working productively. However, the amounts of testing time indicated in the charts below reflect time ranges most students should need to complete the assessment. If a student needs additional time beyond the suggested time range, move the student to a designated area. Schools should set aside a separate classroom space on testing days to continue testing for any student who needs more than the scheduled time per session to finish his/her work. If additional classroom space is not available, schools may consider using the guidance office for this purpose.

If students complete a test session early, those students may go back and check work in that session of the test only or close the test booklets and sit quietly. Students may not work on any other session of the test. Plan an activity for students to do when they finish each session. Since some students will finish early, it is important for them to be quietly occupied so they will not disturb those students who require more time.

The test sessions and estimated time ranges to complete each session are shown in the following chart.

Grades 4, 8, and 10 Recommended Science Testing Schedule		
DAY 1 Science		Time Range (in minutes)
Session 1	Session 1	25–30
DAY 2 Science		
Session 2	Session 2	25–30

Instructions for Test Administrators

The assistance of test administrators is vital to the success of the assessment. As test administrator, you will help to ensure that testing proceeds smoothly, materials are properly accounted for, and responses are accurately analyzed. The quality of assessment data depends, in large part, on uniformity of test administration procedures. For this reason, all test administrators must follow the instructions given in this manual.

All test items and responses in the CRT are secure material and may not be discussed, copied, duplicated or shared in any way or retained in the school after testing is completed. To protect the security of the test, all test administrators must carefully follow the instructions in this manual for administering the test and handling the materials.

Student Test Materials

In addition to this manual, you will receive a set of student test materials for the group of students you will be testing. A complete set of materials for each student includes the following:

- Science Test Booklet; and
- Science Student Response Booklet.

In the class packs, there are four different forms of the test booklet. It is important to remember that the different forms of the booklets have been mixed in the class packs for random distribution to students. **Do not** change the order of any forms.

Student Coding During Testing

Please allow 5-10 minutes before the start of the first test session to briefly familiarize students with their test material. Barcode labels will not be used for the science field test. During this time period, students will:

- 1) write their name and teacher's name on their test booklet and Student Response Booklet;
- 2) code Boxes A, B, C, E, and F.

Test booklets and Student Response Booklets must be kept together during all test sessions. During each subsequent test session, make certain students are working with their **own** test materials (test form must remain the same throughout the testing window): the same ones that were distributed to them at the beginning of the first session.

BOX A: Form

Students will bubble-in the form number (on cover of the student's test booklet).

BOX B: Grade

Students will bubble-in their grade.

BOX C: Student Name

Students will code and bubble-in their last name and first name.

BOX D: Ethnicity: DO NOT CODE

Measured Progress will link ethnicity information via school code and student's name after Student Response Booklets are returned.

BOX E: School Code

Students will code and bubble-in the 4-digit school code.

BOX F: Gender

Students will bubble-in their gender (female or male).

Test Administrator's Role During Testing

During testing, the test administrator's primary responsibility is to

- encourage students to take the task seriously and to do their best on the tests,
- give clear directions to students, and
- monitor student performance to see that directions are followed.

Your School Test Coordinator will notify you about students who are excluded from all or part(s) of the test and about students who will take the test using accommodations. Students normally requiring accommodations for testing should be tested and the appropriate accommodation(s) should be followed. With the exception of approved accommodations, you

should not aid any student in reading, answering, or understanding any of the test questions or help them in any way. Using test materials to familiarize students with test-taking strategies is a violation of test security and testing procedure.

Circumstances over which you have no control (fire drills or power failures, for example) may disturb the students. If an interruption occurs during testing, ask students to insert their response booklets inside their test booklets and, if possible, pass them in to you. When normal conditions are restored, redistribute the testing materials to students and resume testing. Interruptions should not reduce the total amount of time students are given to complete the test session.

Administration Instructions and Scripts

The following pages detail the procedures to be followed for each test session. Please review the step-by-step directions before beginning each part of the test. As you review the directions, familiarize yourself with the appropriate sections of a test booklet and Student Response Booklet. Directions to the students should only take a few minutes so that most of their time can be spent answering the test questions.

To ensure consistent and accurate test administration, a “script” for each session (material to be read aloud to students) is provided within shaded boxes. This text is printed in bold type. Directions to you within the scripts are printed in regular type. Additional directions for you are numbered and printed as regular text.

General Instruction Session To Complete Student Information

Estimated Time: 5-10 Minutes

Materials Needed: Science Test Booklets, Student Response Booklets and #2 Pencils.

NOTE: Before you begin this session, please write your name (teacher name), school name, and school code on the chalkboard.

1. Distribute one test booklet to each student by passing out the different forms just as you would if all the forms were identical.

Please distribute the Student Response Booklets to the appropriate students.

2. Say to the students:

During the next few days, you will be taking a science test. This test will not affect your grades in school. They will help us measure how well we are teaching you. Some of the questions are easy and some are quite difficult. You may not be able to answer every question, but you should take them seriously, and give your best effort because the decisions we make based on these tests will affect you and all students. During the test sessions, you must use a #2 pencil to write and mark your answers. If you do not have a #2 pencil, please raise your hand. (Supply a #2 pencil to students who need one.)

In this session, you will fill out some information on your test materials. On the front cover of the test booklet (Hold up a test booklet to demonstrate.) print your name on the line where it says "Student Name." (Pause.) Now print our school name, as it is written on the board, on the line below that. (Pause.) Finally, print my name, as it is written on the board, on the third line where it says "Teacher/Class." (Circulate and Check.)

3. Say to the students:

First, you will fill out some identification information in the upper right-hand corner of your Student Response Booklet just below the picture. (Hold up a Student Response Booklet to demonstrate.) On the cover of the Student Response Booklet, please print your name on the line where it says "Student Name." (Pause.) Now print my name, as it is written on the board, on the line which says "Teacher Name." (Pause.)

4. Say to the Students:

Directly underneath teacher name you will see Box A, “Form.” Fill out the form number section by bubbling in the number of your test form. Can everyone locate your form number? It is located on the front cover of your test booklet, in the center, directly underneath the word “Grade.” Does anyone need help? (Before moving on, walk around the room to verify that the form numbers have been correctly coded on each Student’s Response Booklet.)

Next, fill out Box B, “Grade.” Please bubble-in your grade. (Pause.)

Now complete Box C, “Student Name.” Please write-in and bubble your last name and first name in the boxes under “Student Name.” (Pause.)

Next, locate Box E “School Code.” Please code and bubble-in your school code as it is written on the board. (Pause.)

Finally, please bubble-in your gender in Box F by darkening either the “Female” or “Male” bubble.

Thank you for completing this information. We will now begin test session one.

Session 1—Science

Materials Needed: Test Booklets, Student Response Booklets, and #2 Pencils.

This test session will take approximately 25-30 minutes to complete. Students who are working productively should be given as much time as needed to complete the test. Students who need more time (over 30 min.) may need to be relocated to a different testing location. If students need to be relocated, you must first collect all testing materials from students. Students should not converse or interact with other students during the relocation, and testing materials will be returned once they are situated.

1. If the student test booklets and response booklets were collected after the General Instruction Session, return them to the students. Each student must have his or her original test materials. Distribute #2 pencils to students who need them.
2. Say to the students:

You are now going to take Science Session 1. Please turn to page 1 in your test booklet and follow along as I read the “General Directions.” (Pause.)

General Directions. This test contains two sessions made up of multiple-choice questions and questions for which you must show your work or write out your answers. Write your answers to all of the questions in your Student Response Booklet.

For each multiple-choice question, choose the best answer. Fill in the bubble in your Student Response Booklet that corresponds to your answer choice for that question.

Some questions ask you to show your work or to write out your answers. Write your answers to these questions in the spaces provided in your Student Response Booklet. Your answers must fit in the spaces provided. Any part of an answer outside the box might not be scored.

Be sure to answer all parts of each question, and to answer completely. For example, if a question asks you to explain your reasoning or show your work, be sure to do so. You can receive points for a partially correct answer, so try to answer every question.

Are there any questions? (Answer any questions the students might have.)

Please turn to page 2 in your test booklet. Now, open your Student Response Booklet to page 2 and locate the box labeled “Science – Session 1.” (Pause while students locate the section.)

Some of the questions may be hard for you to answer, but it is important that you do your best. Fill in the bubble next to the best answer for multiple-choice questions 1 through 14.

Question 15 is called a constructed-response question. This question will ask you to show the work you did to get an answer or to explain your work or reasoning directly in your Student Response Booklet. Be sure to answer all parts of each question and label your answers to the parts (a, b, c, etc.) if the question requires it.

If you do not know the answer to a question you should make your best guess. You may mark your test booklet and underline important ideas if you think that will help you; however, you must mark your final answer in your Student Response Booklet.

We are now ready to begin. Please stop when you finish this session. You may review your answers in this session of the test, but you may not go forward to work on any other sessions. I will tell you when to begin the next session of the test. Are there any questions? (Answer any procedural questions the students might have.)

You may begin.

3. Circulate and check students’ work from time to time during the session. Since this is not a timed test, students who are not finished after the allotted time range, may be relocated to a predetermined location within the school.
4. Say to the students:

The testing period has now ended. Please put your pencil down, insert your Student Response Booklet into your test booklet, and close your test booklet.

5. If applicable, Say to the students:

Students who would like more time to complete the test are to follow me to another location.

6. Collect all test materials and store them in a secure place until the next scheduled part of the test.

Session 2—Science

Materials Needed: Test Booklets, Student Response Booklets, and #2 Pencils.

This test session will take approximately 25-30 minutes to complete. Students who are working productively should be given as much time as needed to complete the test. Students who need more time (over 30 min.) may need to be relocated to a different testing location. If students need to be relocated, you must first collect all testing materials from students. Students should not converse or interact with other students during the relocation, and testing materials will be returned once they are situated.

1. If the student test booklets and response booklets were collected after Session 1, return them to the students. Each student must have his or her original test materials. Distribute #2 pencils to students who need them.
2. Say to the students:

Please turn to page 8 in your test booklet. Now, open your Student Response Booklet to page 3 and locate the box labeled “Science – Session 2.” (Pause while students locate the section.)

Some of the questions may be hard for you to answer, but it is important that you do your best. Fill in the bubble next to the best answer for multiple-choice questions 16 through 28.

Question 29 is called a constructed-response question. This question will ask you to show the work you did to get an answer or to explain your work or reasoning directly in your Student Response Booklet. Be sure to answer all parts of each question and label your answers to the parts (a, b, c, etc.) if the question requires it.

If you do not know the answer to a question, you should make your best guess. You may mark your test booklet and underline important ideas if you think that will help you; however, you must mark your final answer in your Student Response Booklet.

We are now ready to begin. Please stop when you finish this session. You may review your answers in this session of the test, but you may not go forward to work on any other sessions. I will tell you when to begin the next session of the test. Are there any questions? (Answer any procedural questions the students might have.)

You may begin.

3. Circulate and check students' work from time to time during the session. Since this is not a timed test, students who are not finished after the allotted time range, may be relocated to a predetermined location within the school.

4. Say to the students:

The testing period has now ended. Please put your pencil down, insert your Student Response Booklet into your test booklet, and close your test booklet.

5. If applicable, Say to the students:

Students who would like more time to complete the test are to follow me to another location.

6. Collect all test materials and store them in a secure place until the next scheduled part of the test.

Returning Test Materials to the School Test Coordinator

Be sure to return all used and unused test materials to your School Test Coordinator on or before Thursday, March 29:

- Used Student Response Booklets placed in the large white envelope labeled, "For return of used answer documents;"
- Unused Student Response Booklets;
- Student test booklets, used and unused; and
- Test Administrator's Manual.

